

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Appelants:	Emeline C. Tsai et al.	Case:	DIVA/118DIV1
Serial No.:	10/690,856	Examiner:	Shang, Annan Q
Filed:	10/22/03	Group Art Unit:	2424
Confirmation #:	6932		
Title:	VISUAL IMPROVEMENT OF VIDEO STREAM TRANSITIONS		

MAIL STOP APPEAL BRIEF-PATENTS
Commissioner for Patents
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SIR:

REPLY BRIEF

Appellants submit this Reply Brief to the Board of Patent Appeals and Interferences in response to the Examiner's Answer mailed January 21, 2009. In the event that an extension of time is required for this Reply Brief to be considered timely, and a petition therefor does not otherwise accompany this Reply Brief, any necessary extension of time is hereby petitioned for.

Appellants do not believe that any fee is due in connection with this Reply Brief. In the event Appellants are incorrect, the Commissioner is authorized to charge any other fees to Deposit Account No. 50-4802/**SEDN/118DIV**.

TABLE OF CONTENTS

1.	Identification Page.....	1
2.	Table of Contents	2
3.	Remarks	3
4.	Conclusion	8

Remarks

In Section 10 (Response to Arguments) of the Examiner's Answer, the Examiner provides answers to different arguments made by Appellants in the Appeal Brief with respect to independent claim 1 and 10. Appellants believe that the arguments presented by the Examiner were majorly addressed in the original Appeal Brief. However, Appellants address below a couple of points raised by the Examiner in Section 10.

First, the Examiner asserts that "the PID value is a point in time" (see Section 10, page 7, line 3). Appellants strongly disagree.

PID is a term well known in the art and, as understood by a person skilled in the art, a PID value and a time value, i.e., point in time, are entirely different characteristics of streams, and video streams in particular (compare e.g., Radha, col. 2, lines 41 – 45 with e.g., Radha, col. 47 – 51). For example, as described by Radha, PID is a 13-bit packet identifier, which identifies a portion of PES (packetized elementary stream) that the packet is for (Radha, col. 2, lines 42 – 43). In other words, PID values are used for identifying elementary streams in a MPEG transport stream (see e.g., Radha, col. 2, line 42). Time values on the other hand represent presentation times of a program relative to the program clock reference time (PCR) (see e.g., Radha, col. 9, lines 48 – 64).

Moreover, the Radha disclosure expressly contradicts the Examiner's interpretation that a point in time and a PID value are one of the same. For example, Radha describes that all packets for an MPEG group of pictures may have the same PID, while each program may have several auxiliary PID streams (see Radha, col. 2, lines 43 – 47). Because different pictures for the same program are inherently associated with different points in time, according to the Examiner's interpretation of the PID term, such pictures should not have the same PID. However, Radha expressly states that they can have the same PID. Therefore, it is improper to equate a PID value with a "point in time" ("time value").

Further, because the only portion of Radha among the portions cited by the Examiner that discusses the term PID in relation to time is col. 2, lines 41 –

59, Appellants assume that the Examiner bases his interpretation of the term PID on this portion. However, if the Appellants' assumption is correct, the Examiner misinterprets what that portion states. In particular, col. 2, lines 41 – 59 of Radha states:

“The header of each packet includes flags, a countdown field, and a 13 bit packet identifier (PID) field which identifies the portion of the PES that the packet is for. For example, all the packets for an MPEG group of pictures may have the same PID. All the packets with the same PID are called a PID stream.

There are several auxiliary PID streams for each program, one of the streams is the program clock reference (PCR) which contains samples of a 27 MHz clock used by the video and audio encoders and decoders. The PID that carries the PCR is called the PCR_PID. Another auxiliary PID stream for each program, contains a program map table (PMT) which lists all the PID's which belong to the program and defines which PID streams contain which elements (video, audio channels, captions, PCR_PID). All the PID streams for a program are multiplexed together (the packets are intermixed, but bits of different packets are not intermixed) so that, for example, the packets for pictures and the packets for audio frames are mixed together”

(emphasis added).

In other words, each program has multiple PID streams associated with it, where each PID stream is identified by a different PID value. However, all the packets within that PID stream have the same PID value. A certain PID value found in the respective field of a packet allows determining to which PID stream such a packet belongs.

Further, one of the PID streams associated with a particular program is PCR_PID stream. This stream carries clock-reference information. However, all the packets belonging to this stream have the same PID value, i.e., a particular PCR_PID. Accordingly, though different packets in the PCR_PID stream might contain different program clock references, they all would have the same PID value. Therefore, it is clear from the above recited portion that the PID value is not the same as a time value, and thus the Examiner's assumption is incorrect.

Because validity of the assumption that the PID value is a point in time is necessary for the Examiner's argument to succeed, without such an assumption

the anticipation argument fails. Accordingly, for at least the reasons discussed above and in the originally filed Appeal Brief, Radha fails to teach or suggest each and every element of claim 1 arranged as in the claim. Therefore the rejection of claim 1 and the claims dependent from claim 1 is improper. Accordingly, withdrawal of the rejection and allowance of the claims is respectfully requested.

Second, the Examiner indicates that he disagrees with Appellants' "assertion of the storage/retrieval video streams in the storage drive for several reasons. Radha discloses that '... pack the data stream into disks blocks and ... groups of blocks are stripped within the HDS...' and '... reading or writing all the files in all the HDSs...' The HDS (hard drive systems contains redundant arrays of inexpensive disks 'RAID') and further discloses a controller which schedules all the switching through ... in a round robin or more complex manner so that...' ...Radha clearly meets all the claims limitations" (see Section 10, pages 7 – 8). In other words, the Examiner merely restates the arguments he previously made, for example, in the Advisory Action, page 2. However, the Examiner fails to address particular points raised by Appellants in the Appeal Brief.

More specifically, Appellants argued that Radha fails to teach or suggest at least "a plurality of transition points each comprising a beginning of a stripe section of a storage drive," as recited in independent claim 10 (emphasis added). As discussed in the Appeal Brief, the portions of Radha cited by the Examiner disclose at most a general concept of storing by striping. However, these portions do not disclose transition points associated with video stream and related to a particular storage location, such as a specific location of a stripe section, and certainly do not disclose that each of the transition points comprises a beginning of a stripe section. In fact, transition points are not even mentioned and no kind of relations between transition points and striping is defined.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). "The identical invention

must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Here, as discussed above and in the Appeal Brief, the cited portion of Radha do not each all of the elements of Appellants' claim 10 and the Examiner fails to identify where such elements could be found in the reference. If the Examiner suggests that the transition points, each comprising a beginning of a stripe section of a storage drive, are inherent from Radha then the Examiner must provide support for such a suggestion. In fact, "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999); *see also* MPEP § 2112.

Here, the Examiner fails to provide any support that the above identified features of claim 10 are inherent from Radha. Furthermore, assuming *arguendo* that Radha discloses that a video stream is associated with transition points and that such transition points are stored on stripe sections of a storage drive, because nothing in the Radha disclosure prevents from transition points being stored in the middle or the end of stripe sections, a transition point comprising a beginning of a stripe section is not inherent from Radha. Moreover, because nothing in the Radha disclosure prevents from one transition point being stored in the beginning of a stripe section, and another transition point being stored in the middle of a stripe section, and yet another transition point being stored at the end of a stripe section, each transition point comprising a beginning of a stripe section is not inherent from Radha.

Accordingly, for at least the reasons discussed above and in the originally filed Appeal Brief, Radha does not teach or suggest at least that "the first video stream has associated with it a plurality of transition points each comprising a

beginning of a stripe section of a storage drive in a storage array,” as recited in independent claim 10. Therefore, the rejection of claim 10 and the claims dependent from claim 10 is improper. Accordingly, withdrawal of the rejection and allowance of the claims is respectfully requested.

CONCLUSION

Thus, Appellants submit that all of the claims presently in the application are allowable under the provision of 35 U.S.C. §102.

For the reasons advanced above, Appellants respectfully urge that the rejection of claims 1 – 4, 10 – 14, and 21 – 33 is improper. Reversal of the rejection of the Final Office Action is respectfully requested.

Respectfully submitted,

2/13/09
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